



Stronger Over Time:

Digital Preservation Resources
to Help You and Your Patrons

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Agenda

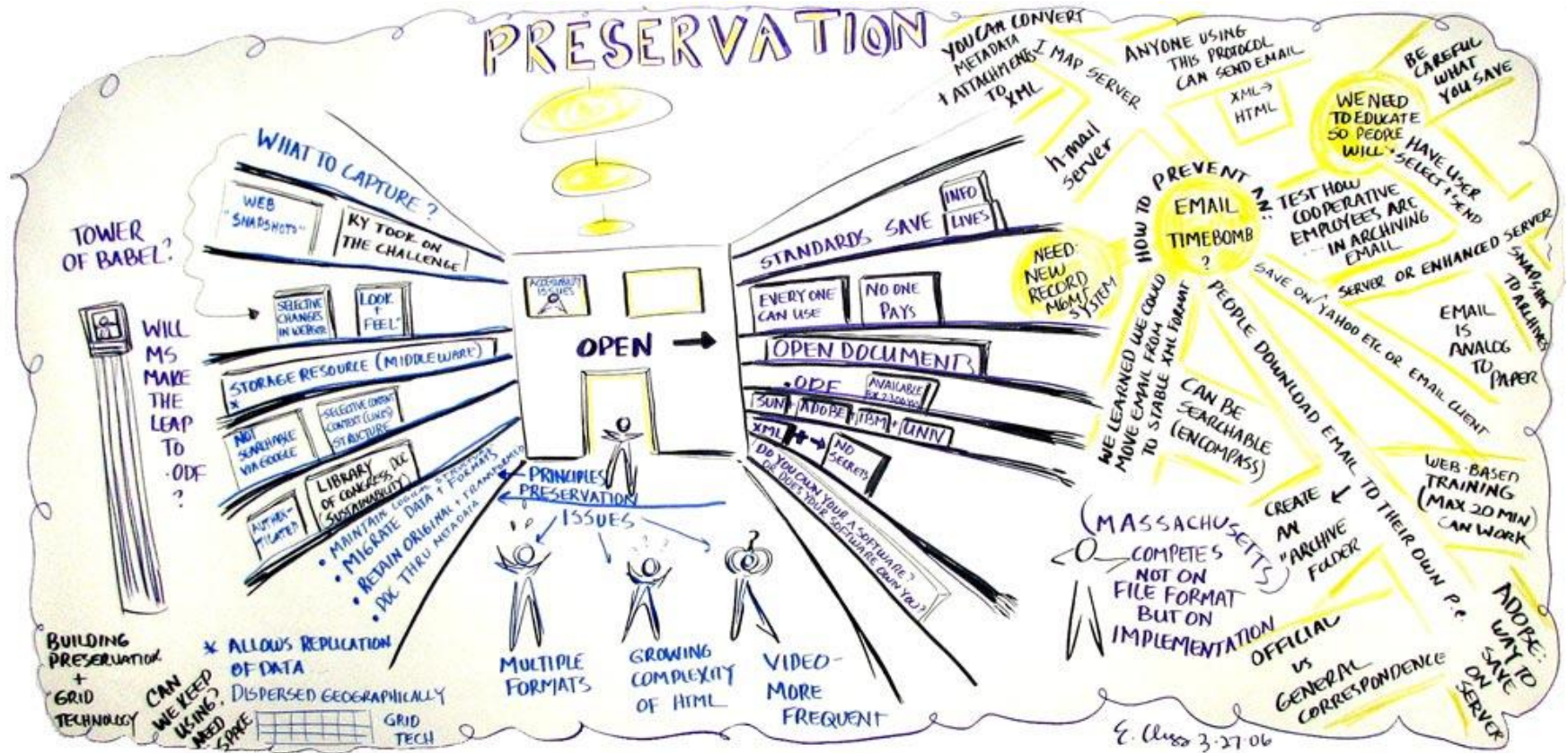
- Digital preservation – what is it and why should we care?
- Digital preservation education website from the State Library of NC & State Archives of NC
- Talking to the public about caring for digital materials

What is digital preservation?

Short Definition

- Digital preservation is a series of managed activities necessary to ensure continued access to digital materials for as long as they are needed.

Why bother with digital preservation?



E. Cluser 3-27-06

Why is the State Library of NC concerned about digital preservation?

- Permanent repository for state government publications
- Today, many state publications only exist in a digital format
- Protect the investment we have made in digitizing print materials
- Citizens need access to government information

Show of hands

Do you...

- Have digital photos or documents to preserve that do not exist in print (“born digital”)?
- Have digitized materials to preserve?
- Have computer files you want to be able to access in five or ten years?
- Have patrons with digital pictures and files they need to access in five or ten years?
- Have a significant record of your life posted to Facebook or Twitter?

Show of hands

Who here...

- Knows someone who has lost all their photos and contacts from their phone?
- Still has a floppy disk or two (or more) somewhere in their house or library? Or, CD-ROMs?

Public Records of Public Libraries

“Records Retention and Disposition Schedule: Public Libraries.” Government Records Branch, State Archives of North Carolina.

- http://www.ncdcr.gov/Portals/26/PDF/schedules/schedules_revised/public_libraries.pdf

http://digitalpreservation.ncdcr.gov

 Digital Preservation Education

Home>Create>Manage>Policies ▾>More Resources ▾>About ▾>Contact



Digital Preservation Best Practices and Guidelines



I Create Files



I Manage Files



Policies, Guidelines



More Resources

What is digital preservation?

Digital preservation is a series of managed activities necessary to ensure continued access to digital materials for as long as they are needed.

What does this mean for you?

The more thoughtful you are about creating and managing your digital files, the longer they'll be around in the future.

What can I learn here?

You can learn best practices for preserving digital files, whether it's for your job or in your personal life. We're especially happy to help employees of the state of North Carolina, as well as North Carolina librarians, archivists, or other stewards of cultural heritage.

Twitter



UITS Lab Consultants @uits_lcc_iupui 1h
President McRobbie unveils digital preservation initiative, comprehensive strategic planning process! ow.ly/pAbxq



Simon Tanner @SimonTanner 1h
Save our preservation tool kit! | Digital Preservation Seeds bit.ly/18KzmPH
Expand



Adelina Silva @ade_silva 3h
Digital Preservation of cultural data | Digital meets Culture dlvr.it/45hr7k
Show Summary



I create digital files

1 Use good file names

Make them unique, descriptive, and consistent.

Only use letters, numbers, underscores, or periods.

Include a version number or a date (YYYYMMDD) for easy sorting.

Compare these file names:



report.pdf
report2.pdf
annrept.pdf



DART_reportv1.pdf
DART_reportv2.pdf
DART_annrept2010.pdf

agendaAug2010.doc
agendaDec2010.doc
agendaJul2010.doc

BOGagenda201007.doc
BOGagenda201008.doc
BOGagenda201012.doc

IMG00107.jpg

Lincoln_pc_20100331.jpg

SEE ALSO

[Brief video tutorial on file naming](#)

[Best practices for file-naming \(.pdf\)](#)

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[Best practices for cloud computing: records management considerations \(.pdf\)](#)

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[State Archives' recommended file formats \(.pdf\) for long-term file management](#)

2 Back up your files

Store files in a place that is backed up regularly and automatically.

Store important files in multiple places - such as an external hard drive, network storage, or cloud storage - that are in different geographic locations.

3 Avoid proprietary file formats

If you can, save your files in open-standard instead of proprietary formats.

Open formats include .png, .tif, .pdf, .a, .rtf, [OpenDocument formats](#), .wav, .avi, .csv, and .xml.



I manage digital files

1 Plan for what you will manage

Identify the possible scope of what you will need to manage to ensure adequate storage space.

Store files you're preserving separate from working files or files used everyday. Your "preservation storage" should only be accessible to a limited number of people.

2 Keep the context

Metadata, or data about data, are pieces of information that describe a file. Work to keep metadata with a file, to help future managers understand (a) how the file was created (b) when (c) by whom.

You may want to consult the [NC Preservation Metadata for Digital Objects](#) to help you decide on metadata to record.

3 Run virus scans, fixity checks

Run a reputable virus scan with the latest virus definitions against each file prior to adding it to your preservation storage.

Run fixity checks (see sidebar) on files before you put them in your preservation storage and record the checksum in your metadata. Fixity is especially important for preservation of materials that must remain authentic, like public records. Without a fixity check, there may be no way to verify that the file you have in storage is identical to the one you initially received.

WHAT IS FIXITY?

Fixity means the file's bitstream (1s and 0s, sort of like the file's DNA) has not changed over time.

HOW DO I CHECK FIXITY?

Generate a checksum (also called a hash) using many of the free software products available online. Record that checksum. Re-generate it periodically over time. If the value stays the same, your file has not changed.

SEE ALSO

[North Carolina Preservation Metadata for Digital Objects](#)

[Best practices guidelines for metadata as a public record \(.pdf\)](#)

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[LOCKSS program](#)

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[Digital preservation tools and services](#)

[POWRR Tool Grid \(preservation tools feature comparison\)](#)



Digital preservation-related policies and guidelines

North Carolina policies and guidelines

Title	Of particular interest to...	
	Librarians, Archivists, Collection Managers	State Agency Employees
Archival process for data and image preservation: Management and preservation of digital media		×
Best practices for file-naming		×
Best practices for social media usage in North Carolina		×
E-mail as a public record in North Carolina: A policy for its retention and disposition		×
File Formats for Transfer of Electronic Records to the State Archives of North Carolina		×
File Formats Guidelines for Management and Long-Term Retention of Electronic Records		×
Metadata as a public record in North Carolina: Best practices guidelines for its retention and disposition		×
North Carolina Department of Cultural Resources Digital Preservation Plan, 2013-2015		×
North Carolina Department of Cultural Resources digital preservation policy framework	×	×
Preservation and file format guidelines for the State Library of North Carolina Digital Repository	×	
Preservation metadata for digital objects (NC PMDO)	×	
Records retention and disposition schedules for state agencies		×

CONTACT US

Contact us if you have questions about these policies, or creating your own digital preservation policy.

Policies from other states and institutions



Digital preservation-related policies and guidelines

Electronic records management policies and guidelines by state

Included below are links to statewide policies/guidelines for electronic records management (where found). Please [contact us](#) to add a policy/guideline to this list.

Alabama	Louisiana	Ohio (.pdf)
Alaska (.pdf)	Maine (.pdf)	Oklahoma
Arizona	Maryland	Oregon
Arkansas (.pdf)	Massachusetts (.pdf)	Pennsylvania (.pdf)
California (.pdf)	Michigan (.pdf) Storage; Preservation	Rhode Island (.pdf)
Colorado	Minnesota	South Carolina
Connecticut (.pdf)	Mississippi	South Dakota
Delaware (.pdf)	Missouri	Tennessee (.pdf)
Florida (.pdf)	Montana	Texas
Georgia	Nebraska	Utah
Hawaii (.pdf)	Nevada	Vermont
Idaho	New Hampshire	Virginia
Illinois	New Jersey	Washington
Indiana (.pdf)	New Mexico	West Virginia
Iowa	New York	Wisconsin
Kansas	North Carolina	Wyoming
Kentucky	North Dakota	

SEE ALSO

[Concepts for developing digital preservation policies](#)

[Digital preservation policies: Guidance for archives \(.pdf\)](#)

[Digital preservation policy template \(.pdf\)](#)

[Establishing a digital preservation policy](#)

Other digital preservation policies



Further information and standards

Further Information & Standards | [Tutorials & Webinars](#) | [Who to Follow](#) | [PMDO](#)

What is Digital Preservation?

[Digital preservation: Continued access to authentic digital assets \(.pdf\)](#)

[DigitalPreservationEurope \(DPE\) YouTube channel](#)

Glossaries

[Digital Curation Centre glossary](#)

[Universal Preservation Format glossary](#)

How to do it

[Digital Preservation in a Box](#)

[Digital preservation management tutorial](#)

[Digital records preservation: Where to start guide \(.pdf\)](#)

[Guidelines for the preservation of digital heritage \(.pdf\)](#)

[Personal archiving: Preserving your digital memories](#)

Making the case

HANDOUTS

[Digital preservation brochure \(.pdf\)](#)

[Digital preservation checklist \(.pdf\)](#)

STILL NEED MORE INFO?

[Digital curation and preservation bibliography](#)

[Digital preservation: Annotated reading list \(.pdf\)](#)

[Preserv bibliography on digital preservation](#)

[Rare book school preliminary reading list: Born digital materials: theory & practice](#)



State employee checklist for digital preservation

If you need any assistance implementing these practices, please contact the Department of Cultural Resources at digital.info@ncdcr.gov.

If I am creating a digital public record I need to remember to:

- ☐ Use good file naming practices (see the State Archives best practices for file naming document).
- ☐ Store the file in a location that is backed up, preferably to a remote location.
- ☐ Use open-standard software or save to an open-standard file format once I finalize the file.
- ☐ Give the files to a digital file management expert when I finalize them. For state publications the State Library should receive the digital file once it is finalized and for all other public records the files should be managed in accordance with the retention schedule.

If I am managing digital public records I need to remember to:

- ☐ Identify the scope of the content that I can manage and make sure I receive it all from the content creators.
- ☐ Run virus and fixity checks on the files at regular intervals.
- ☐ Store multiple copies of the files, preferably in different geographic locations.
- ☐ Maintain the accessibility of the files through migration, emulation, or some other preservation strategy.
- ☐ Create and store access copies of the files in a location where they are available for use by authorized individuals.

If I am using digital public records I need to remember to:

- ☐ Provide feedback to the person responsible for managing a file when I can't access it.
- ☐ Provide feedback to the person responsible for managing a file when I can't use the file in a way I need to.
- ☐ Acknowledge the care and work that has gone into maintaining the accessibility of the files I am using.
- ☐ Credit the managing institution for providing me with the files.



Tutorials

[Further Information & Standards](#) | [Tutorials & Webinars](#) | [Who to Follow](#) | [PMDO](#)

Videos, Online Tutorials, Webinars

	Of particular interest to...	
Title	Librarians, Archivists, Collection Managers	State Agency Employees
Authenticity and your digital files NEW	x	x
File naming tutorial (4 parts)	x	x
Preservation planning and an introduction to PREMIS (archived webinar)	x	
Managing electronic public records: Recognizing perils and avoiding pitfalls		x
Managing your inbox: E-mail as a public record		x
Saving your Facebook data	x	
Social media for state agencies tutorial		x
Social media usage in NC state government		x
Someday they'll thank you: An introduction to digital preservation (archived webinar)	x	x



OTHER PRESENTATIONS

Presentations on digital information by State Library employees



Design and production of this site was funded through a Library Services and Technology



NORTH CAROLINA
DEPARTMENT OF
CULTURAL
RESOURCES



Information sources

[Further Information & Standards](#) | [Tutorials & Webinars](#) | [Who to Follow](#) | [PMDO](#)

Who should I follow?

Blogs

[Blog of the Long Now](#)

[da \(digital archive\) blog](#)

[DigitalKoans](#)

[File Formats Blog](#)

[FutureArch](#)

[L'Archivista](#)

[Neil Beagrie's blog](#)

[Netherlands Coalition for Digital Preservation weblog](#)

[The Signal](#) (Library of Congress, NDIIPP)

Twitter

[Bill Lefurgy](#),
Digital Initiatives Manager, NDIIPP

[DigPres411](#) (That's us!)

[Lorcan Dempsey](#),
Vice President and Chief Strategist, OCLC

[National Digital Information Infrastructure and Preservation Program](#) (NDIIPP)

[National Digital Stewardship Alliance](#) (NDSA)

[Trevor Owens](#),
Digital Archivist, NDIIPP

[William Kilbride](#)
Executive Director, DPC

Institutions or initiatives to watch

[Digital POWRR](#)

[Digital Services Section, State Archives of North Carolina](#)

[International Internet Preservation Consortium](#)

[JISC](#) (Joint Information Systems Committee)

[Library of Congress digital preservation site](#)

SUGGESTED CONFERENCES FOR INFO PROFESSIONALS

(North American focus)

Jan: [International Digital Curation Conference](#)

Apr: [International Internet Preservation Consortium General Assembly](#)

Jun/Jul: [American Library Association annual meetings](#) (see "Digital Preservation Interest Group" events)

Jul: [NDIIPP Digital Preservation Conference](#)

Jul: [Joint Conference on Digital Libraries](#)


Aug: [Society of American Archivists annual conferences](#)

Dec: [Best Practices Exchange](#) (for state government employees)

Continuing education

- Webinars: Lyrasis, Library associations, and Archives associations (ASERL, SAA, etc.)
- Tutorials on YouTube, Vimeo
- Digital Preservation Outreach & Education (Library of Congress)


Patrons: Personal digital archiving

[ASK A LIBRARIAN](#)[DIGITAL COLLECTIONS](#)[LIBRARY CATALOGS](#)

Search [GO](#)

The Library of Congress > [Digital Preservation](#) > [Personal Archiving](#)

DIGITAL PRESERVATION

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Resources


- [Digital Formats Sustainability](#)
- [Federal Agencies Digitization Guidelines Initiative](#)
- [Preservation and Conservation at the Library of Congress](#)
- [Section 108 Study Group](#)
- [Standards at the Library of Congress](#)
- [Web Archiving at the Library of Congress](#)

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Personal Archiving

Preserving Your Digital Memories




[Personal Archiving](#) | [Digital Photographs](#) | [Digital Audio](#) | [Digital Video](#) | [Electronic Mail](#) | [Personal Digital Records](#) | [Websites](#)

How to Preserve Your Own Digital Materials

Our photo albums, letters, home movies and paper documents are a vital link to the past. Personal information we create today has the same value. The only difference is that much of it is now digital.

- [How to Scan Your Personal Collections](#) (PDF, 78 KB)
- [How Long Will Digital Storage Media Last?](#) (PDF, 83 KB)

 ["Why Digital Preservation is Important for You."](#) Simple, practical strategies for personal digital preservation.

Chances are that you want to keep some digital photos, e-mail, and other files so that you—and your family—can look at them in the future. But preserving digital information is a new concept that most people have little experience with.

Ensure that your digital materials last a lifetime by taking steps to preserve them:

- [Digital Photographs](#)
- [Digital Audio](#)
- [Digital Video](#)
- [Electronic Mail](#)
- [Personal Digital Records](#)
- [Websites](#)

This site provides some tips to help make your personal "born digital" information last. The guidance is basic and is meant to be a place to get started. You may want to get additional details about working with specific kinds of digital content.

[Download Personal Archiving Brochure](#) (PDF, 1.7MB)

Personal Digital Archiving Day Kit

The Library of Congress has held Personal Digital Archiving Day events to provide this basic guidance to individuals about preserving personal and family memories in digital form. You can read about those events [here](#) and [here](#) and [here](#).

Are you interested in hosting your own personal digital archiving event? Take a look at our [Personal Digital Archiving Day Kit](#) for planning guidance and relevant information resources you can use to develop your own program.

Patrons: Save the original



Saving Social Media data

- Facebook allows users to export their data.
- Twitter does now, too.
- Wordpress & Blogger allow users to export their posts and comments.
- Third party tools for many social media sites (like Tumblr).

Saving data from a phone/mobile device

Minimum

- Cloud storage for that device, service provider
 - What if you want to change providers?
 - Is everything that you want to save being saved? How frequently are you saving?
 - Is it secure? Are you saving information you don't want compromised if there is a security breach?
- Other cloud storage:
 - Google, Amazon, Dropbox
 - Is it secure? Are you saving information you don't want compromised if there is a security breach?

Saving data from a phone/mobile device

Better –

- Back up to one or more external hard drives regularly

Ideal –

- store one of those hard drives in a different geographic area

Replace hard drives at least every five years

Questions? Comments? Tips?



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Thank you!

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